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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,937	07/16/2003	Ramin Samadani	100110275-1	8859

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INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

PERUNGAVOOR, SATHYANARAYA V

ART UNIT	PAPER NUMBER
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2624

MAIL DATE	DELIVERY MODE
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08/20/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/620,937	Applicant(s) SAMADANI, RAMIN	
	Examiner Sath V. Perungavoor	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-15 and 19-22 is/are rejected.
- 7) ☒ Claim(s) 7-9 and 16-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/28/07</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant(s) Response to Official Action

- [1] The response filed on June 28, 2007 has been entered and made of record.

Response to Arguments

- [2] Presented arguments have been fully considered but are held unpersuasive. Examiner's response to the presented arguments follows below.

Claim Rejections - 35 USC § 103

Summary of Arguments:

Regarding independent claims 1 and 11, applicant argues that Parke does not disclose the first interpolator and the high spatial frequency component generator.

Examiner's Response:

Examiner respectfully disagrees. Parke does disclose the first interpolator and the high spatial frequency component generator; Examiner refers the applicant to the rejection where limitations are glaringly mapped out.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

[3] Claims 2 and 11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

- Examiner is unable to correlate the claim limitation to disclosure, hence does not see the invention as properly enabled in the disclosure. In response to this rejection, Examiner requests the applicant to explicitly map out each claim limitation, including the claims upon which these claim depends upon, to the disclosure. Note, merely pointing out to pages or paragraphs in the disclosure in not sufficient, there needs to be an explicit correlation between the claim language and the disclosure.

[4] Claims 2 and 11 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Examiner is unable to correlate the claim limitation to disclosure, hence unable completely understand what is intended (i.e. meaning) by the claim limitation. In response to this rejection, Examiner requests the applicant to explicitly map out the each claim limitation including the claims upon which this claim depends, to the disclosure. Note, merely pointing out to pages or paragraphs in the disclosure in not sufficient, there needs to be an explicit correlation between the claim language and the disclosure.

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[5] Claims 1, 3, 4, 5, 10, 12, 13, 14, 19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parkeⁱ in view of Turnerⁱⁱ et al. ("Turner"), as set forth in the previous non-final office action (mailed on 03/28/2007), which is incorporated herein by reference.

[6] Claims 2, 11, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parke in view of Turner further in view of Burtⁱⁱⁱ et al. ("Burt"), claims were given consideration in view of the 112 rejections set forth above.

Regarding claim 2, Parke and Turner meet the claim limitations as set forth in claim 1.

Parke and Turner do not explicitly disclose the following claim limitations:

The high resolution image reconstruction system of claim 1, further comprising a [controller] that control relative contributions of said motion-compensated high spatial frequency component estimate of said low resolution image frame and said generated low spatial frequency component of said low resolution image frame in the reconstructed high resolution image of said low resolution image frame based on measures of confidence in motion estimates used to map said high spatial frequency component to the motion-compensated high spatial frequency component estimate of said low resolution image frame.

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However, in the same field of endeavor Burt discloses the deficient claim limitations, as follows:

A controller controlling (*i.e. through alignment parameters*) the adding (*i.e. fusion*) of input image and the mosaic to optimize motion confidence [*col. 10, ll. 16-23; col. 11, ll. 45-50*].

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Parke and Turner with Burt to apply weighted the alignment parameters according to motion confidence values, the motivation being remove influence of erred motion vectors [*col. 10, ll. 16-23*].

Regarding claims 11, 20 and 21, all claimed limitations are set forth and rejected as per discussion for claim 2.

[7] Claims 6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parke in view of Turner further in view of Griessl^{iv} et al. ("Griessl"), as set forth in the previous non-final office action (mailed on 03/28/2007), which is incorporated herein by reference.

Allowable Subject Matter

[8] Claims 7-9 and 16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

[9] Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information

[10] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Sath V. Perungavoor whose telephone number is (571) 272-7455. The examiner can normally be reached on Monday to Friday from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Matthew C. Bella whose telephone number is (571) 272-7778, can be reached on Monday to Friday from 9:00am to 5:00pm. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dated: August 13, 2007

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Sath V. Perungavoor
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- i US 5,025,394
 - ii US 6,198,505
 - iii US 5,649,032
 - iv US 6,370,196



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